

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Theodore James Myers, et al.

Serial No.: 10/621,127

Group Art Unit: 2687

Filed: July 16, 2003

Examiner: Phuoc Huu Doan

For: OVER THE AIR USER ZONE ASSIGNMENT
FOR WIRELESS TELEPHONY SYSTEMS

Attorney Docket No: SBC 0131 PA

I hereby certify that this correspondence is being sent via facsimile to: Commissioner for Patents, Attention: Examiner Thanhnga B. Truong, Mail Stop Amendment, P.O. Box 1450, Alexandria, Virginia 22313-1450 at fax number (571) 273-8300:

August 4, 2005
Date of Deposit

Angie Moscovitz


Signature

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. 1.131

We, Theodore James Myers and Patrick Jay Walsh declare that:

1. We are the co-inventors of claims 18-37 of the above-identified patent application.
2. Prior to August 24, 1999, we conceived the idea of: In a wireless communication system including a network controller providing communication services to a plurality of mobile user terminals, a method of defining user zones associated with each of said user terminals comprising the steps of: locating a user terminal within said wireless communication system; referencing at least one user-selected vector from said user terminal location; transmitting said vector information to said network controller; and generating at the network controller, a user zone


U.S.S.N. 10/621,127

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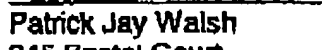
SBC 0131 PA

associated with said user terminal as a function of said vector information, said user zone defining a geographic region wherein said user terminal can access said communication services of said communication system without incurring out-of-network fees. On October 27, 1998, an invention disclosure was submitted to the Ameritech Patent Department. The disclosure was received on October 30, 1998 and is attached hereto as Exhibit "A."

3. On November 4, 1998, the disclosure was sent to Lyon & Artz, PLC for a patentability search as evidenced in Exhibit "B."
4. On January 15, 1999, Lyon and Artz, PLC contacted the inventors regarding the patentability search.
5. On or about January 29, 1999, a decision was made to proceed with the filing of an application for the invention disclosure.
6. On August 24, 1999, a draft of the application was sent to inventor Ted Myers as evidenced by Exhibit "C."
7. On September 20, 1999, the patent application was filed. It has now issued as U.S. Patent No. 6,618,594.
8. The present application is a continuation of U.S. Patent No. 6,618,594.


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245 Dundridge Circle
East Dundee, IL 60118-1447

Dated: 8-4-2005


Patrick Jay Walsh
345 Bristol Court
Bloomington, IL 60108

Dated: _____

U.S.S.N. 10/621,127

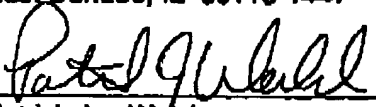
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SBC 0131 PA

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8. The present application is a continuation of U.S. Patent No. 6,618,594.

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pgw

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Dated: 8/4/2005

EXHIBIT A

Appendix A

CONFIDENTIAL (When completed)
Solely for use by Ameritech employees who have a need to know.
Not to be disclosed to or used by any other person without prior authorization.

LEGAL DEPT. USE ONLY

Disclosure No.: <u>A00498</u>	Date: <u>10/30/98</u>
Patent Committee Action <u>P. issue</u>	

Invention Disclosure Form

1. What can we call your invention? (10 words or less)
Over the Air user zone area assignment
2. Who do you think contributed to the conception of your invention?
List yourself and the people who may be Inventors. (Use additional sheets if necessary)

Theodore J. Myers

Name Printed

Signature Theodore J. Myers

Date

Current Ameritech Employee? ☒ Yes ☐ NoAmeritech Cellular and Paging
Business Unit847-765-5648

Telephone Number

847-765-3709

Fax Number

Patrick J. Walsh

Name Printed

Signature Patrick J. Walsh

Date

Current Ameritech Employee? ☒ Yes ☐ NoAmeritech Cellular and Paging
Business Unit847-765-5845

Telephone Number

847-765-3709

Fax Number

Name Printed

Signature

Date

Current Ameritech Employee? ☐ Yes ☐ No

Business Unit

Telephone Number

Fax Number

Name Printed

Signature

Date

Current Ameritech Employee? ☐ Yes ☐ No

Business Unit

Telephone Number

Fax Number

3. Who will be the point of contact for further confirmation?

Name: Ted MyersTelephone: 847-765-5648

AAB

4. What is your invention? Please attach additional sheets (as much as you feel is necessary) to describe your concepts - flow charts and/or block diagrams can be very helpful. In preparing this description, try to address the following:
- a) What have others done in the past (or, do now)?
 - b) What makes your invention new or different from what was done before?
 - c) What makes your invention better than what was done before?

This invention utilizes location technology to assign a user zone of operation in a cellular network. The user zone of operation affords the mobile station the ability to have special features or billing rates applied to the mobile station while operating within the user zone.

User zone definitions and operations of user zones are under development by the CDMA Development Group and TR45.5 standards group. There is no method of over the air user definition of user zones implemented at this time. The method for having the user define a user zone of operation other than a circle with a radius of X meters over the air, is unique to this disclosure.

This information was originally submitted to the CDG on September 29, 1998 to develop discussion with in the Tiered Services group of the CDG.

The attached three sheets are a copy of this submission.

✓
AAB

TITLE:

Method for over the air definition of user zone area

DATE:

September 29, 1998

SOURCE:

Cellular Services

2000 West Ameritech Center Drive
Hoffman Estates, Illinois 60195-5000

Ted Myers
Phone: (847) 765-5648
Fax: (847) 765-3709
tmyers@ameritechcell.com

ABSTRACT:

This contribution proposes an idea to allow the mobile station an over the air method of creating a geographic user zone in a geometric shape other than a circle.

RECOMMENDATION:

It is recommended that the CDG discuss this idea with the other comments.

Notice

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This information is provided to the CDG for discussion purposes only and is not allowed for distribution outside of the CDG. Additionally, this information is not binding upon the CDG nor upon any of its members.

X DAB

User Zone Shape and Size Definition Idea
September 29, 1998

Prepared by Ted Myers
Ameritech Cellular

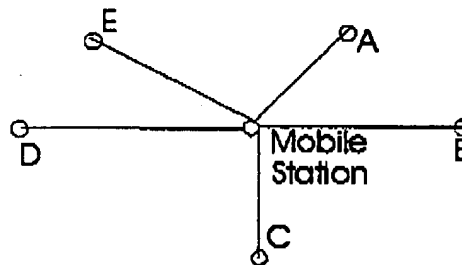
Reference conference call discussion on 9/22/98

I am recalling the thoughts that were expressed at the last face to face meeting as well as during the conference call regarding the ability to define user zone areas in geometric shapes other than circles.

The next idea was to allow the mobile station to define a user zone 'on the fly' in areas where the mobile station may be roaming. A restriction was added, to keep the amount of information exchanged over the air to a minimum.

If the mobile station has the latitude and longitude for its current position calculated or determined in one fashion or another, it would be possible to send vector information over the air specifying an angle and magnitude from the current mobile station location. These vectors would represent points in two-dimensional space with the angles referenced as the points on a compass. The magnitude would represent the distance from the users current location along the angle in units of meters.

The BTS or MSC would provide a processing algorithm to connect the points together using line segments, defining the geographical area for the temporary user zone. The points in space represent a different geometric shape.



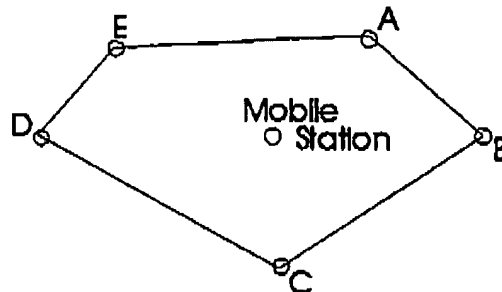
Vector A: 35°, 100 m
Vector B: 90°, 120 m
Vector C: 180°, 100 m
Vector D: 270°, 150 m
Vector E: 300°, 140 m

Figure one: Defining the points in space using vectors.

The information transmitted would not entail a large number of latitude and longitude coordinates, only the mobile station latitude and longitude would be necessary. Vectors would all be relative to the mobile station latitude and longitude. A limit could be set on the number of vectors that a user could send to define his particular zone geometry.

1
X AAB

The final user zone representation is pictured in Figure two. The points in space defined by the vectors have been connected together with line segments defining the user zone area. This calculation and user zone area is performed in the BTS or MSC.



Vector A: 35°, 100 m
Vector B: 90°, 120 m
Vector C: 180°, 100 m
Vector D: 270°, 150 m
Vector E: 300°, 140 m

Figure two: Final user zone area as calculated by the BTS or MSC

5. Please complete the attached evaluation matrix.
6. Two witnesses (who are not inventors) must attest to the fact that they read and understand the attached description. The Witnesses must sign below and initial and date each page of the attached description.

J. Patrick Anderson
Witness Name

ADAM BORIS
Witness Name

[Signature]
Signature

10-27-98
Date

A. Boris
Signature

10-27-98
Date

RAP

EXHIBIT B

2000 West Ameritech Center Drive
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Office 847/248-8816
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Bruce E. Stuckman, Ph.D.
Patent and Technology Counsel

NOV 05 1998

November 4, 1998

John A. Artz PC
28333 Telegraph Road
Suite 250
Southfield, MI 48034

Re: Invention Disclosure
Possible Patent Application
"Over the Air User Zone Area Assignment"
Our File: A00498

Dear John:

Enclosed is a disclosure by an Ameritech inventor. Please conduct a patentability search for this invention. I would like the attorney handling the case to identify any patents that arose during the search that require further investigation from a defensive perspective. I would also like to personally discuss the search results with this attorney before we decide to proceed with filing a patent application. I will need an estimate for preparation and filing costs at that time. If we decide to proceed with this application, the target date for filing will be January 30, 1999.

Please let me know as soon as possible which attorney will be handling this case. Feel free to have this attorney contact Ted Myers (Telephone 847/765-5648) if you need any additional information about this invention.

Please let us know if you have any questions. Thank you for your assistance in this matter.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Bruce E. Stuckman", written over a horizontal line.

Bruce E. Stuckman

/mem

[p:/mem/word/Artz.doc]

EXHIBIT C

LYON & ARTZ PLC

Attorneys & Counselors
Intellectual Property & Technology
Related Causes

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August 24, 1999

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Mr. Theodore J. Myers
Ameritech
2000 West Ameritech Center Drive
Hoffman Estates, IL 60195-5000

Via Federal Express

**RE: U.S. Patent Application for
"Over The Air User Zone Assignment
For Wireless Telephony Systems"
Your Reference No.: A00498
Our File No.: AIT 0133 PA**

Dear Ted:

Enclosed is a draft of the subject patent application including informal copies of the drawings. Please review all of the documents with your co-inventors to make sure they fully and accurately disclose and claim the invention. Please let me have your comments on the application. If there are any changes that you wish to make to the application or drawings, please give me a call so that we may discuss them.

A patent application must set forth the best mode of the invention known to the inventor(s) at the time it is filed. Thus, if you or the other inventors have any additions or changes to the subject matter of the invention (including the drawing figures) in order to meet this requirement, the application should be amended accordingly. Also, if you have any additional or alternate embodiments or features of the invention, they should be added at this time.

Very truly yours,



Robert P. Renke

RPR/jac

Enclosure